## ABSTRACT OF THE DISCLOSURE

A communication network control method for a communication network including a hub and a plurality of user nodes includes adjusting system parameters to maximize communication data rate and minimize bit error rate given current conditions of the wireless channel, current loading of the network, and user constraints. In particular, the method includes transmitting a first plurality of symbols with a first modulation and first forward error correction in a frame from the hub to a first user node, and transmitting a second plurality of symbols with a second modulation and second forward error correction in the frame from the hub to the second user node.

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